

REMARKS

In response to the Office Action mailed December 22, 2006, Applicants request reconsideration of this application in view of these remarks and amendments.

I. Response to Rejections Under § 112

Regarding the rejection of claim 13 under § 112, claim 13 is amended to remove the language noted in the Office Action to be indefinite.

Regarding the rejection of claim 1 under § 112, for the terms “mono-block and diblock polymer chains,” these terms are limitations directed to the structure of the nanoparticle, and Applicants believe that it is not necessary to additionally limit this to a chemical formulation. The limitation is definite as to the structural aspect it is intended to convey.

Examples of such mono-block and diblock polymer chains are given in the specification, for example, page 4, lines 20-24 state: “The individual nanoparticles are formed from diblock polymer chains having at least a poly(conjugated diene) block and a poly(alkenylbenzene) block and monoblock polymer chains having a poly(alkenylbenzene) block. The poly(alkenylbenzene) blocks may be crosslinked to form the desired nanoparticles.” Additional examples and explanation is given at page 3, lines 5-11, page 6 lines 1-11, and page 6 line 20 through page 7 line 13.

II. Response to Rejections Under § 103

The rejections of the claims under § 103 over Krom (U.S. 6,437,050) and Demirors (U.S. 6,441,090); Wang (U.S. 6,689,469) and Demirors; and Krom, Demirors, and Wang or

Coolbaugh (U.S. 5,399,629) are traversed. For any of these rejections to be proper there must be some motivation to combine Demirors with Krom or Wang. Applicants assert that there is no motivation to combine and that the references, in fact, teach away.

Demirors and Krom teach away from making the claimed combination. Krom states that “[n]ano-particles preferably are monodisperse in size and uniform in shape.” (Col. 1: Lines 18-19; *see also* Col. 2: Line 11.) Whereas, Demirors teaches a bimodal particle size distribution. (Abstract.) Thus, these references clearly teach away from combining the two references to make the claimed nanoparticles that “have a size distribution that is polymodal.” There is no reason to combine a reference that teaches anything other than a monodisperse particle with Demirors.

Similarly, Demirors and Wang also teach away from making the claimed combination. Wang states that “[n]ano-particles preferably are monodisperse in size and uniform in shape.” (Col. 1: Lines 30-31; *see also* Col. 3: Lines 3-6.) Whereas, Demirors teaches a bimodal particle size distribution. (Abstract.) Thus, these references clearly teach away from combining the two references to make the claimed nanoparticles that “have a size distribution that is polymodal.”

Regarding the rejection based on Krom, Demirors, and Wang or Coolbaugh, claim 16 is dependent on claim 10, therefore, for at least the reasons expressed above, the rejection of claim 16 should also be withdrawn. The additionally cited reference, Coolbaugh, does not remedy the lack of a motivation to combine Krom or Wang with Demirors.

In light of the strong teaching away found in the references, it would require an impermissible hindsight view of Applicants’ disclosure to find a motivation to combine these

references. Therefore, Applicants submit that the rejections of claims 10-17, and 23 are improper and should be withdrawn.

III. Response to Double Patenting Rejections


Claims 10-17 and 23 were rejected for non-statutory Double Patenting over the combination of Demirors and Wang (U.S. 6,872,785). The arguments above apply with equal force against this rejection, *i.e.* there is no motivation to combine Demirors with Wang.

Particularly, there is no motivation to combine Wang with Demirors, because, Wang teaches away from Demirors, stating that “[n]ano-particles preferably are mono-disperse in size and uniform in shape (Col. 1: Lines 30-31.),” and Demirors teaches a bimodal particle size distribution (Abstract). Therefore, Applicants request this rejection be withdrawn.

IV. Conclusion

For the foregoing reasons, Applicants respectfully request that the rejections be withdrawn and a Notice of Allowance be issued.

Respectfully submitted,



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